

NFPA 70E | ARC Flash Information

Applicable Regulations

OSHA 29 CFR 1910.147 29 CFR 1910 Subpart S and 1926 Subpart K EHS 118 – Electrical Safe Work Practices

Applicability

The requirement for arch flash safety applies to all potential electrical hazards 480 volts or greater. ASU requires that only qualified persons shall be permitted to work on electrical conductors or circuit parts that have not been put into an electrically safe work condition.

Each piece of equipment operating at 50 volts or more and not put into a de-energized state must be evaluated for arc flash and shock protection prior to being serviced or put into service. This evaluation will determine the actual boundaries –i.e. prohibited, limited, restricted etc. and will inform the employee of what PPE must be worn.

Requirements

Employees must follow the requirements of the Arc Flash Hazard label by wearing the proper personal protective equipment or PPE, use of insulated tools and other safety related precautions. This includes not working on or near the circuit unless you are a "qualified" worker.

Qualified person: One who has received training in and has demonstrated skills and knowledge in the construction and safe operation of electric equipment and installations and the hazards involved approved by the University and EHS.

Additional requirements for qualified persons: Qualified persons –i.e. those permitted to work on or near exposed energized parts– shall, at a minimum, be trained in and familiar with the following:

- The clearance distances specified in <u>29 CFR 1910.333 c</u> and the corresponding voltages to which the qualified person will be exposed.
- The skills and techniques necessary to determine the nominal voltage of exposed live parts, and
- The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment.

Equipment

ASU's arc flash protective equipment includes flash suit, including the hood and face shield, Electrical safety rated rubber gloves or like. All electrical safety equipment shall have an arc rating that is suitable for the arc flash exposure. Contact the Department of Environmental Health and Safety for more information regarding arc flash safety requirements for employees.

Additional Information

Arc Flash Safety information:

- Flash Protection Boundary or outer boundary: The flash boundary is the farthest established boundary from the energy source.
- Limited Approach Boundary: An approach limit at a distance from an exposed live part within which a shock hazard exists.
- **Restricted Approach:** An approach limit at a distance from an exposed live part which there is an increased risk of shock.

Contact ASU EHS: safety@asu.edu